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THE FOUNDATIONS OF THEISM.

I. THE REALISM OF THEISM.

IT IS commonly alleged that there is deeply seated in the human mind a belief in the existence of a supreme being, and that the prevalence of such belief is evidence that it has a basis in supernatural revelation. It is urged in reply to this assertion, that this belief is not universal, and that in any case its presence cannot be regarded as satisfactory evidence that is well founded. It is known that the disposition to worship is aroused by grand and beautiful objects ; and as Darwin well remarks in one of his letters, the natural sentiments of the sublime and the beautiful easily assume a personal direction. Scientific explanations, moreover, push a personal source of things ever further from us, and it is becoming apparently more easy to doubt or deny any such source whatever.

Prevalent human instincts and intuitions are, however, the result of experience imperfectly or perfectly digested, as the case may be. In most instances they yield to analysis something of value. A more plausible explanation of the theistic instinct is the anthropomorphic one. Man knows that he originates many movements, both of his own body and of other material things, and he knows of no other real source of such movements. He therefore, in his primitive state, before scientific explanations are attained, naturally refers motions in nature to an original personal source. This, it may be supposed, is the natural habit of the unsophisticated mind, and is at the bottom of theistic belief, whether as unexplained in consciousness, and therefore an instinct, or as a distinctly formulated belief. The phenomena of nature must have originated somehow, and there is no other conceivable source of motion than a personal one.

Facts developed by scientific research tend to weaken this anthropomorphism. The indestructibility of matter means that it has never been created. The conservation of energy states that matter has always been in motion. The law of organic evolution is supposed to do away with the necessity for creative intervention in the origination of plants and animals. Finally, the observed facts of the evolution of mind show that this, the light of the world, grew like the organic beings which it inhabits. Nothing higher than man has been found, and there seems to be no ground for suspecting the existence of any higher mind. And man himself dies and undergoes dissolution, like other organic bodies. The result of this use of the facts of science is agnosticism, at least. We know of nothing beyond what they teach, and some agnostics go so far as to say, "ignorabimus," we shall never know. Agnostics, however, have their faces set in different directions. Some rest in it as a relief from mental toil, as persons more theologically inclined join a church. Others, believers in the progressive evolution of knowledge as of other phenomena, set themselves to explore the unknown country, believing that our opportunities in this direction are practically unlimited.

Let us look again at this anthropomorphism which is so deeply seated and so widely spread. Its essence is the fact that we control our own bodies in a great degree and that our material organs obey the behests of our mind. We do things for, to us, satisfactory reasons, and for satisfactory reasons we leave many things undone, which we could readily do. What has science done towards explaining this most ordinary phenomenon? We may truthfully say, absolutely nothing. It remains a fact that a majority, if not all animals, move their bodies in their entirety or in part, because they have sensations. In the lower animals these sensations are merely either sense-impressions from without, or they are from within, being produced by their physical condition. We rise but little in the scale, when effects of memory are evident, for we find that many actions are due to experience of the result of former actions. With still higher development, mental organisation becomes more apparent, and the reasoning and emotional states have more and more

distinct outcome in intelligent acts. But the mechanism by which the act is called forth by the mental state, has never been explained.

The difficulty lies here. A sensation, or a state of mind, weighs nothing. A material body, let it be a cell or a mass of cells, as a muscle, weighs something. How then can the former move the latter? From a mechanical point of view, it cannot be done. For that which has no weight to set in motion anything which has weight, is to violate the law of the conservation and correlation of energy. And this law is not only an *a priori* necessity, but it has been demonstrated *a posteriori* in so many cases that exceptions cannot be thought of. So a school of physiologists say that *it is not done*. No animal eats because it is hungry, or drinks because it is thirsty. The man does not direct the muscle of his arm when he writes, nor those of his tongue when he speaks. But it is easy to see why such a school of physiologists includes but an infinitesimal part of mankind.

There is a school of evolutionists who account for the whole matter in harmony with the views of the physiologists above mentioned. I refer to the Post-Darwinians, who account for evolution by natural selection exclusively. That is, animals originally moved aimlessly in all directions. Those whose movements were beneficial to them, survived, while those whose movements were not beneficial, or which were injurious, perished. As frequent motions in a given direction lead to habits, so were inaugurated movements which were habitually beneficial to the actors, which have therefore persisted and multiplied. Thus were established the multifarious habits of animals and men. Consciousness had nothing to do with the process. It merely acted the part of the onlooker, being simply aware of what went on. "Like the locomotive whistle," says Huxley, "it made considerable noise, but did none of the work."

To a person familiar with the facts of the evolution of the structures of animals, this seems like a most inadequate theory. It is a commonplace that no kind of selection, either artificial or natural, ever originated anything. Selection simply selects between existing alternatives. The fundamental question of evolution is, What is the origin of things? What is the fate of things originated? is a sec-

ondary question. To this first question the Post-Darwinian reply must be, that everything possible has originated no one knows yet how, so that what has survived was necessarily to be found in this *embarras de richesse*. This is an enormous assumption, and one to which the history of the life of past and present ages lends no support. No such multifarious and promiscuous variation is known to have occurred in living or in extinct organic beings. But if the variations have not been infinite, then the chance of the existing one having been hit upon becomes greatly reduced, and the chance of its having occurred at the same time in individuals of opposite sex is still smaller. Finally, the chance of its not being immediately bred out by the overwhelming numbers of individuals not possessing it, is indeed infinitesimal. In fact, it is evident that variations of structure must have appeared in numbers of individuals of a species at the same time, in order to secure survival. This indicates a common cause of general application. That such causes have existed and been effective at all periods of past and present time is amply proved by the facts of geology and paleontology. The most influential in effecting change of form and structure has been the motion of the body and of its parts necessary to secure its food, to defend or protect itself from dangers, and to reproduce its kind. The direct mechanical effects of these motions on all the materials of the body may be traced in the successive stages of the forms of past ages to those of the present time.

The objections above made to the theory of multifarious variation of organic forms, apply with equal force to the theory of multifarious movements of organic beings as furnishing the source of intelligent habits. An additional and especial objection to the latter hypothesis is the fact that it does not recognise the well-known adaptability of animals to new situations and circumstances. If the events of life were a routine moving with mathematical precision, the theory of origin from multifarious variations would have a better foundation; but this is not the case. Food, friends, and enemies do not appear in stated periods, quantities, or qualities. Emergencies are common, and variation of circumstance is the rule. Without sensation, uniform habits would but lead to destruction.

Everything which should not be presented in the habitual form and at the habitual time would be neglected. Food and drink would be refused, or not obtained; defense and reproduction would not be attempted under the proper conditions. In fact, the conduct of living beings would be no more intelligent than that of inorganic matter in motion, were sensation to have no share in the process. But as soon as we believe that the habits of animals are due to hunger, thirst, and the perception of temperature, resistance, etc., their acts become intelligible, and the formation of habits becomes a necessary consequence of memory or the faculty of subsequent recognition of sensations experienced at a previous time.

It is, in this connection, of great interest to recall the diverse effects on our mental history of sense-impressions, as compared with the effect of thought. Sense-impressions are not remembered in the proper sense of the term. The repetition in memory is always vastly more indistinct than the original state of consciousness; so much so as to be a very different thing. Thought, on the contrary, when remembered at all, is an exact repetition in quality of its first presence. The presentative consciousness has one quality; the representative and re-representative have another quality. This shows us that the structural arrangement of brain substance concerned in the latter forms of consciousness have a far more permanent quality than that due to the former. They thus constitute more permanent acquisitions, and this being the case, must have a most important bearing on evolution.* This is because it is a representative state which determines action. The process of determination may become so rapid as to be almost instantaneous; but it had to be learned, and the representation was what gave the act its character and which organised the machinery of the automatic or reflex act.

I here refer to the low degrees of consciousness sometimes called subconsciousness, and the expression, "the subliminal consciousness," introduced by F. Meyer. All shades of consciousness intervene between the most distinct forms and the unconsciousness

* *Proceedings of the American Philosophical Society*, 1889, p. 495.

of the reflex state. Intelligent subconsciousness is a low stage in this evanescent series. Stages on the passage to and from sleep, and other forms of unconsciousness due to physical causes, are properly termed subconscious. There are reflexes which are due to mechanisms which we inherit from our animal and human ancestors, which are sometimes accompanied by consciousness. The amount of intelligence displayed will depend on the function involved. Experiments on vertebrate animals show that intelligent adaptation of the movements of the body have been transferred forwards in the brain during the course of evolution. Thus, a fish which retains the medulla only, will guide itself through the water so as to avoid danger. If the cerebellum and thalami are left to a reptile, it will avoid destructive acts. But if a mammal is deprived of its hemispheres, its actions are without design, and it is incapable of self-preservation.

It may be that in the temporary absence of the higher consciousness, the lower forms which once existed in our ancestors may be revived, as in some of the elements of our dreams, and in some forms of cerebral disease, when much of the blood is withdrawn from the cortex or parts of it. The amount of consciousness necessary to the performance of intelligent acts depends on the novelty of the situation. Many of the theories on this subject, however, take it for granted that intelligent acts arise in primarily unconscious states. This is only credible on the supposition that such acts have arisen by natural selection only, a view which I have combated on a previous page. Some authors use expressions which can only imply unconscious consciousness. This is of course absurd and self-contradictory. No source but sensation can be found for intelligent acts.

It is true that there are some movements of organic bodies which have an intelligent appearance, to which we cannot ascribe consciousness. Such are those of the spermatozooids and of the leucocytes. Some of the lowest animals and plants cannot be yet proved to be conscious. We cannot now explain the nature of the movements which these forms exhibit, but they will probably yield to research. Enough it is for our present purpose to know that the

majority of animals are conscious for a large part of their lives. And we have abundant evidence to show that movements inaugurated in conscious states may be performed, so soon as learned, in unconsciousness, and become part of the mental furniture of the animal.

It seems, then, that the control of ponderable matter by mental states is not the exclusive prerogative of man, but is a phenomenon of common observation in the animal kingdom. The facts indicate that it is characteristic of mind to move resistant and tri-dimensional matter under suitable conditions. These conditions are rigid, but within the limits which they define, the sequence is definite. It is difficult to believe in anything which is in direct violation of mechanical necessity, and a mere hypothesis to that effect would not deserve a moment's consideration. But the belief that the body, or parts of it, are moved in direct obedience to mental states is founded on more numerous observations than are most of those beliefs which we hold to be true. In fact there is no scientific doctrine better supported by observation and experience than this one. On this ground alone, then, we are compelled to believe in something in the universe which is supermechanical, or extra-mechanical. We may call this supernaturalism, or occultism, or what we like, but the fact remains. We have in it the germ of theism, anthropomorphic, if you will, but one which grows in importance as we come to examine further into the characteristics of mental action.

Before going into this part of the subject, I will refer to the part played by mind in evolution. From what has gone before, it is evident that this part has been an important one. If structures are produced by motions, it is clear that habits produce structures, and *vice versa*; and that under the law of natural selection only the useful and harmless ones have survived. It follows, then, that progressive evolution of form is secured by the presence of consciousness, and must, sooner or later, fail without it. With development of intelligence the progress must become more continuous and rapid. The facts of paleontology confirm such a hypothesis; since the more intelligent animals (Mammalia) have generally supplanted the less intelligent, (Reptilia and Batrachia), whenever brought into conflict

with them. The supremacy of the intelligent over the unintelligent Mammalia is also clearly shown by research into their past history. The modification of type, or evolution, has also become more and more rapid as time has advanced and intelligence developed.

There is another reason why the intervention of supermechanics into the process has been necessary to secure such results as we observe in the evolution of life. The law of inorganic evolution is, as Spencer epitomises it, "the integration of matter and the dissipation of energy." Natural chemical reactions when not interfered with by human intelligence, produce solids and give out heat. In other words, they result in death and not in life. To produce life something different from chemical energy has been necessary. And as the case is a parallel one to the evolution of the types of life, we may suspect that the agency at work has been a related one. It is some form of energy of the vital class which is able to overcome the bonds which hold dead matter in their adamantine grasp; and it is evident that such an energy could have been organised only in some region where mechanics of a superchemical order prevail. If we take a large view of the universe the alternatives of life and death present themselves clearly before us. The law of the latter is the integration of matter and dissipation of energy. The law of the former is the converse; the loosing of the bonds of matter, and the production of mechanism for the raising of the type of energy. The first is catagenesis, the latter is anagenesis. The end of catagenesis is the extinction of all mind and all life. Anagenesis sustains both. The best foundation for our belief in anagenesis is that it exists. Catagenesis has not destroyed it, and this fact must lead us to suspect that it is the product of an agency which is superchemical; and the only such that we know is consciousness.

In the presence of such a far-reaching hypothesis we are called upon to consider more particularly the relations of mind to its physical basis. The essential condition of the existence of mind as we know it, is metabolism. The substance* of the nervous cells must be

* Recent experiments conducted in the laboratory of the Johns Hopkins University show that the cytoplasm of cells, which are exhausted by labor, is vacuolated.

in a state of decomposition and recomposition ; old material loosing its chemical bonds and giving forth energy, and new material arriving to undergo the same process. The energy thus produced displays the phenomena of mind, and as such differs widely from the inorganic energies of heat, light, etc. The extent to which it displays habits depends on the part of the nervous structure where it is produced. In the spinal cord it is strictly automatic, and as we approach the hemispheres the so-called voluntary element becomes more apparent, until a region is reached where conception, deliberation, and judgment have their seat. In this region energy is purely mental in its attributes, and it unlocks the executive mechanism of the body, and puts it in action in accordance with the needs of consciousness. So far, mechanical laws explain the order of events. The supermechanical resides in the mental content and its effects on the outgoing energy. No quantitative relation can be shown to exist between the results of the mental processes of classification, conception, judgment, etc., and the amount of incoming or outgoing energy. Indeed it is plain that none can exist, if the statement already made be true, viz., that thoughts are without weight. This part of the subject requires critical treatment, but the general result is included in the above statement, which is sufficient for our present purpose.

Since consciousness possesses such extraordinary relations to matter we may well suspect that it has a wider distribution than comes within the purview of our present limited ken. Why should it not protect and nourish itself under conditions different from those which prevail in our planet? The one condition necessary to it is metabolism—which means free energy. The kind of physical basis cannot be important, provided it be capable of exhibiting this kind of non-automatic energy. Automatism and all its reflex consequences are the death of consciousness, as every one knows. From such a type of energy all the fixed types of energy must have been derived, and with them the types of both mental and physical structures. In its freest form it should have as a physical basis a form of matter which should be without habits, but always ready to undergo a catagenetic change into routine energy and ultimate unconsciousness.

Such a medium should be unspecialised matter, and the consciousness inhabiting it would be a creator. Such consciousness would be readily transmitted wherever the physical basis should be suitable, and one such substance is our protoplasm. The probable inferiority of protoplasm as a physical basis is indicated by the long and tedious education which has been necessary to enable beings made of it to attain a high order of intelligence. In such a basis anagenesis is slow, and catagenesis is easy. Other bases might be imagined where the reverse would be the case. No assumption can be made as to a constant and limited amount of consciousness in the universe. That such is the case is supposable; but it is also supposable that the amount of suitable physical basis may be increased by a process of assimilation of non-conscious matter, as is done by animals in digestion and reproduction. This process might continue until all matter should be brought into that generalised condition which is necessary to the continuance of consciousness. The entire universe would then be conscious, and a maximum limit would be reached. In the primitive consciousness, whatever its extent in space in the Universe, we have the Supreme Being or Person.

II. THE IDEALISM OF THEISM.

What I mean by the above expression is the theism which is supposed to be demonstrated by idealistic metaphysics. There are two forms of this alleged demonstration, both of which have for their starting-point the basis of the idealistic philosophy. This basis is the fact that we know nothing of matter excepting as sense-impressions. From this it is inferred that were conscious beings to become extinct, matter would no longer exist. It is also a consequence of this belief that what we observe of the conduct of matter, which we call by the name of natural law, is of purely mental origin.

If now the universe consist wholly of mind, the totality of it, either as reduced to a body of general laws, or to a single comprehensive generalisation, or concept, is one form of idealistic God. The other demonstration is as follows. Since matter exists as mental states, and since these mental states are common to mankind,

who are mortal ; since these mental states reproduce themselves from generation to generation, it is inferred that a permanent mental state exists, which possesses the permanent sensations we call matter. And this common mind of humanity is God.

The difference between these deities is this. In the first case he is an abstraction of the human mind and therefore not a person apart from such men as are capable of the generalisations of which he consists. In the second case he is a person apart from humanity. The validity of either demonstration to the thinker depends on his point of view. To every one but the idealist, the first proposition is atheism. The evidence for the second is metaphysical anthropomorphism, and would be a demonstration, were the theory of idealism well founded.

The fact that we only know matter as sense-impressions does not, in the opinion of realists, prove that it does not exist as the resistant and extended. Resistance of each part to the movements of other parts (energy), and extension in space, are conditions about which we have a great deal of information. Our lives are spent in overcoming the one, and in getting round the other. Our methods of dealing with it represent the antithesis of those employed in thought-processes. The latter are best performed in the absence of the muscular exertion which is so necessary in dealing with the former. I have referred to the well-known difference in consciousness between sense-impressions and the representation and re-representation of them. The difference certainly implies a difference in the immediate sources of the respective kinds of consciousness. The one is produced by something different from that which produces the other. In short, the one is produced by the contact of matter external to our physical basis, and the other is produced by a modification of brain-structure ; and in the first place by that simplest form of it which is the cause of memory. The effect of such observation is the conviction that matter exists as something outside of consciousness or mind, in spite of the fact that we only know it in consciousness. In a word, consciousness and knowledge imply the existence rather than the non-existence of something which is known.

The fundamental actualities are, then, subject and object ; or, in popular language, mind and matter. Philosophy includes the sciences which embrace the knowledge of both subject and object ; but the practical philosophy is the science of the mutual relations of the two. It may be said that subject and object are opposite sides of the same reality, but this form of expression appears to me to be no more accurate than the statement that energy and matter are opposite sides of the same thing. As energy is the motion of matter, mind is the intelligence of matter ; and both may be called properties of matter with equal propriety, since both are impossible without a physical basis. Mind, however, differs from energy in possessing some intrinsic qualities which are in essence independent of the qualities of the physical basis ; and these intrinsic qualities are the forms of logic. These are, however, but a part of the totality of mind, although they underlie or penetrate all its representative activities.

While mind then cannot exist without a physical basis, it remains to be considered whether any other objective world is necessary to its existence. It is sometimes alleged that consciousness could not exist without an objective, exterior to its physical basis. If, however, consciousness is a necessary attribute of free energy, the latter purely metaphysical speculation has no foundation. The "intuition of Being" (Rosmini) would exist, albeít not much specialised, in the absence of multifarious objects ; but the forms of logic would characterise it nevertheless.

It is alleged that we can never know matter as it is, because our observation is restricted to the mutual relations of its component parts. In this assertion our intelligence necessarily concurs, but this need not cause us to relax our exertions in the pursuit of knowledge. The practical philosophy is, as already remarked, the knowledge of the relations subsisting between mind and matter, so that our most valuable acquisition will be in the end the laws of a relation. We may well postpone our endeavors after the absolute, even if we can ever attain a knowledge of it. The realist is content to believe that if we do not know "things as they are in themselves," it is because of the imperfection of our senses. But we are constantly discover-

ing new aids to research, and we can put no limit to our power in this direction.

The research into the relations of subject and object, means to theology, an investigation as to the existence and nature of Deity, and as to an existence for conscious beings in other than terrestrial life. The pure idealist reaches an affirmative answer to these problems by a short and easy route, based on a study of the intrinsic nature of mind alone. The pure realist reaches a negative conclusion by an equally short cut, by considering the properties of matter alone. Not a few thinkers entertain both doctrines at one and the same time, although they are mutually exclusive and contradictory. No wonder that they reach what Montgomery well terms "the puzzle of puzzles." But the rational conclusion from this deadlock must be, that there is something wrong with the methods of both sides. To the practical mind it seems that the vice in both methods is the failure to harmonise properly with their own, the facts adduced by the opposite side in the discussion. And it is indeed evident that that cannot be the final philosophy which restricts itself to a consideration of mind alone ; or that which restricts itself to a consideration of matter alone. That men should pursue different lines of research is natural. Those whose minds are capable in the fields of conception naturally prefer idealistic studies ; while those whose especial genius lies in the direction of mechanics, easily pursue materialistic research. What is needed is a combination of the two fields of ability in the same mind.

A considerable class of serious people, observing the diversities between the schools of philosophy, regard such studies as useless. Since they have not the disposition or ability to solve the question for themselves, they find it best to rest in uncertainty, which has optimistic or pessimistic tendencies according to temperament and education. The optimist has faith that all is, and all will be, well ; while the pessimist takes the opposite view. Both are sustained in their position by those teachers who teach the impotence of our faculties and the uselessness of knowledge. Such appeal in support of their position to the facts already cited ; the imperfection of our senses ; the relativity of knowledge ; the inscrutable nature of mind

and matter, etc. This position is, however, a plea of avoidance, and it will be time enough to listen to it when the avenues of the increase of human knowledge are permanently closed. This they are not at present.

The key to the position is the doctrine of evolution. Here we behold the interaction of subject and object, both in our own persons and in the inferior beings which are with us, and which have preceded us on earth. That mind has not sprung full-fledged upon this planet, is clear; and that it has made wonderful progress in power, is equally clear. Why did it not appear with all its powers "in the beginning"? The answer obviously is, "the intractability of matter." Why has it progressed in face of this obstacle? The answer is, the tractability of matter. Mind, through its intrinsic quality, has coerced matter, in ever increasing degree, and the limit of its capacity in this direction plainly has not yet been reached. Its most important conquest has been that of its own physical basis, and next to it is the conquest of the world of objects by which it is surrounded. Its last conquest will be the knowledge of its destiny, as a projection of its known past. To this end the knowledge of its own constitution is essential, but this is not all, as the pure idealist would have us believe. The knowledge of external relations is also essential, for we can in no state of being escape them. Psychic life is an "internal adjustment to external relations," quite as much as is the physical life, as it is defined by Spencer in the phrase just quoted.

The Deity of evolution indicated in the first section of this paper, will not satisfy the pure idealist. He is not an absolute, since He is compelled to respect relations. But we find Him to be just, which he evidently is not if absolute. He is anthropomorphic, and not an abstraction of the human mind. And yet as the seat of rationality, and as the director of free energy, He possesses the function of creator of whatever is possible. The evolution of independent human minds has been only possible through education, and here as elsewhere, teachable students have met with greater success than the stolid.

It has been already pointed out that the process of evolution

may be either progressive (Anagenesis) or retrogressive (Catagenesis). This is well known to be the case with organic types, where degenerate phyla are common. It seems, indeed, that in the order of things degeneracy has occurred wherever it has been possible; that is, under circumstances which permitted vegetative life through lack of stimuli to energetic motion. There has always been "room at the top"; but only when all the lower fields of existence have been for the time being filled, has there been room at the top only. The history of mental evolution has accompanied that of general structural evolution, and for similar reasons. It is well illustrated in human society to-day. These facts suggest that this has been the history of all evolution, since they harmonise with the order of evolution observed in our solar system, in which the inorganic has preceded the organic, or Catagenesis has preceded Anagenesis. If the forms of non-vital energy represent a result of Catagenesis, we are not bound to look on minerals as in any sense living, as has been suggested by Haeckel and others. Most, if not all, forms of chemical energy have sunk below the vital level, and certainly far below the possibility of displaying consciousness. We are here looking over unexplored territory, and one whose elucidation is entirely in the future, but we may put our ideas in order, if we do nothing more.

Besides his relations to the impersonal materials that surround him, man has essential relations to his fellow-man. The laws of these relations are ethics. Much is written and spoken against the utilitarian or evolutionary theory of ethics. I cannot, however, escape the conviction that this theory offers the true explanation of the rise of the ethical sentiment in mankind. But to understand it aright, we must include the growth of the social sentiment, as well as that of the rational element, in the evolution of justice or right. The opponents of this view sometimes commit the error common to all those who do not understand the nature of mental evolution. Some of them imagine that it is necessary to suppose that, in harmony with this theory, every man decides his every act solely in accordance with what appears to him at the time to subserve the lowest form of selfishness of which he is capable. The doctrine, on

the contrary, maintains that habits of honesty and justice are the result of the education of the ages, and that men obey such motives according to their developmental status ; that is, in accordance with the evolution of the habit of preferring the higher to the lower forms of utility. The further question of what it is that has raised the standard of utility, is answered by what we see going on around us. The fear of the law ; the love of the approbation of our fellows ; the sympathy with our fellow-men ; the fear of their indignation ; all these are educators of great potency, which have always been active. These motives, organised as character, are compulsory, and it would be strange if they have not been effective in producing results.

Practical ethics has to do with material beings and their material possessions, i. e. with person and property. Without the objective, the content of ethics is purely ideal, consisting of love and hate, and the justice and injustice of opinion which might be the outcome of those sentiments. These sentiments are realities of the subjective, representing the affections, as the form of thought constitutes the rational faculties. But if we endeavor in thought to deprive love and hate, justice and injustice, of all material consequences and implications, we deprive those sentiments of much of their value if we do not abolish their occasions altogether. It appears to me at least doubtful whether hate and injustice could exist in a society consisting of disembodied minds, if such beings could be imagined ; a supposition which I cannot entertain.

If ethics cannot exist without material expression, it is clear that, on the other hand, they cannot exist without a subjective foundation. Thus ethics is the highest expression of the relation between mind and matter. Ethics is the practical application of the mental powers to human relations, and the more complete the evolution of mind, the more perfect is the ethical practice. Thus the evolution of the mind is the guarantee of ethical progress, and the more intelligent the mind, the more easy will the evolution be. As in all education, the laggards experience the severities of compulsion, while pains and penalties are avoided by those who perceive their approach and do not await their arrival. Here we have the utilitarian ground of our numerous ethical and religious organisations.

They invite men to *a priori* subjective theory, and objective practice, so as to preserve society from the evils of inferior and painful methods of compulsion, which lie at the basis of ethical evolution. It is the dread of this method which rouses a natural repugnance in the minds of many men to the doctrine which teaches of it. But it must be remembered that the instruments of evolution change with the thing that is evolving, and the conditions of progressive ethics are the stages of progress of the mind. What is necessary for the education of the lower mind is no longer necessary for the higher. This is not only a truth of philosophy, but the fact may be discerned in the religions which men have made for themselves. They describe the ethical state of their authors, and prescribe the treatment appropriate to it.

Our knowledge of some parts of evolutionary history is meagre, and on some of its chapters we are absolutely in the dark. This is especially true of the causes of the appearance of life and consciousness on the earth. Spontaneous generation has not been proven, and the immediate source of sensation is unknown. The conclusions enumerated in the preceding pages are derived from evidence presented in more or less complete fragments. But the thesis remains true that mind possesses a limited control over its physical basis, but one which is sufficient to account for the main direction of the evolution of those organic forms which possess it. And it is also true that the essential forms of the rational mind are not due to corresponding qualities of the physical basis. These forms are: the principles of identity, of abstraction, and of generalisation or conception. These characteristics constitute the idealistic essence of Theism. But we look to the realistic element of Theism for the demonstration of the distinct personality of God.

E. D. COPE.